

Axolotl care booklet

Axolotl Size

An adult axolotl can grow to between 20-25 centimetres (7 - 9 inches) but some can get upward of 30+ centimetres (11 inches), this is somewhat rare now-a-days.

Sexual maturity

Between 6-18 months, male axolotls will start to form a large bump at the base of the tail and a female will have a small one or may not have one at all. Females also tend to be chubbier and more rounded than males who are slimmer.

There are some males who have a small set of nuds which makes them appear to be thin females, I've personally noticed this occurs in golden albino types more than others.



Some females may look male briefly as their cloaca does puff up when they need to poop. If you are still unsure about your axolotls sex then share a photo like shown and share to the facebook group 'Axolotl Advice'.

Axolotl Life Span

Axolotls can live 10-15 years if taken care of properly and are not from clutches where they are genetically inbred.

Axolotl Housing

A 2 foot long, 75 litre (20 gallon) aquarium is a minimum size for a single axolotl, add 1 foot for each additional axolotl (so if you want 3, you'll need at least a 4 foot long tank). Axolotls need floor space not height when it comes to their ideal tanks.

A lid or aquarium hood is recommended since axolotls have been known to launch themselves out of their tanks and tubs.

We also suggest lids for homes that have children or cats to avoid accidents.

Male and Females should NEVER be housed together, due to the fact the males will breed the females to exhaustion and in many cases, death.

Egg laying is incredibly taxing on their bodies.

If you do have a pair that are opposite genders, a separate tank is necessary unless your tank is large enough to be divided with a **solid** divider and 2 separate filters.

A filter will help maintain safe water parameters. The most common choice is an external canister filter, but make sure the water outlet to the aquarium is fitted with a spray bar or other flow-spreading outlet. Something as simple as an organic sponge or a body loofah can be used to disrupt water flow.

A filter with an adjustable flow will also work.

You can also use in-tank canister filters, as well as sponge filters since they tend to have less flow. This is necessary because axolotls do not tolerate heavy water flow like fish.

Axolotls that live in noticeable water flow for a few months can stop eating and develop stress-related diseases.

Lack of appetite and forward-curved gills are the most common signs of stress.

FISH AND SNAILS ARE NOT SUITABLE TANKMATES!!

Far too often I see people share photos of their axolotls on facebook forums and the lotls have obvious signs of fish-caused injury. Jade_Axolotls in NSW Australia has shared photos of axolotls they've received from these cruelty cases which i have also shared to both the Fleurieu_Axolotls facebook and instagram pages.

Unfortunately 90% of the people who keep their lotls in dangerous environments will not change their 'care' simply because their tank would be boring otherwise. This is incredibly cruel and irresponsible.

If you wish to have fish + snails then you'll require a separate tank suitable for the species you plan to get.

Ghost and Cherry shrimp as well as freshwater scuds are really the only acceptable tank mates as they act as a clean-up crew that can be eaten by the axolotl. Shrimp and scuds will eat axolotl pellets and left over frozen foods which helps gut load them.

Axolotl Lighting and Temperature

Like the vast majority of amphibians, axolotls do not require lighting. Lighting is generally for our viewing pleasure, and for aquarium plants. New axolotls may be shy if kept under bright lighting, though they will get used to it if provided with enough hiding places such as caves, wood, plants, etc. don't keep the light on longer than 4 hours a day as Axolotls don't have eyelids (reason hides are necessary) and it'll reduce algae growth.

Choose a plant-friendly bulb such as those sold for freshwater aquarium fish. Keep inmind that lighting fixtures can generate excess heat and this can be detrimental to axolotls.

Temperatures up to 20 Celsius are well-tolerated by axolotls. An ideal temperature range is the mid-teen's. Temperatures above 22 Celsius will lead to heat stress, loss of appetite, and in some cases even death. You can also invest in an aquarium chiller, but they can be pricey. Chillers are necessary if you're living in a hot climate.

To be blank and straight forward, If you cannot provide year-round temperatures within their needs, axolotls are not the right pet for you.

Axolotl Substrate

Axolotls have a bad habit of ingesting gravel and mouth-sized objects die to the way they intake food. This can lead to impaction of the gut and cause the death of the axolotl. Anything x3 the size of an axolotl's head (or smaller) can and will be consumed!

This means that bare-bottom, fine sand, slate rock, tile, and adult palm-sized stones 4 times the size of the axolotls head are suitable for your tank.

A substrate is not required– many keepers use no substrate at all – but it is certainly more pleasing to the eye if a substrate is used. It will also help to keep water parameters stable by providing additional surface area for beneficial bacteria to inhabit, along with giving the lotl to grip onto something.

I personally have used sand but now keep my setups bare-bottomed solely for ease of maintenance as my adults are kept in ICB ponds (ground has texture to it). One of the many things I loved about fine sand is that you're able to see your lotls footprints.

To Australian axolotl owners - The best sand I've used is the Bunnings Richgro soft washed play sand. You will need to spend a lot of time rinsing it in a bucket with a garden hose as it is very dusty which will end up clogging your filters. It is worth it in the end.

Do not put axolotls under 12 cm onto sand as it's the same as putting an adult onto gravel!



An axolotl's stomach should be smooth and streamlined like the leucistic, not weighed down like the wild. Food will weigh the stomachs down but not as drastically as gravel does.

Axolotl Diet

Hatchling + Baby = Food must be available to them 24/7

Juvenile = Fed 2x a day

Adult = Fed 1x a day to 1x every 3 days (depending of the individual axolotls metabolism)

Staple: Canadian, European and African nightcrawlers, large Earthworms, Axolotl pellets, Repashy grub pie and live blackworms (for Axolotls that are not yet adults).

African Nightcrawlers are favoured by my guys. Earthworms such as red wigglers / tigers can be very bitter resulting in your lotl/s spitting them out and not eating them.

There are a few ways to combat the problem

1) Cut the worms in half. This releases the bitter chemical. After this, soak them in water for about an hour, and they should be good to go.

2) You can blanch the worms. Boil some water, hit the worms with some boiling water and then quickly fill with COLD water. If you just boil the worms completely, they lose their nutritional value. Feed immediately after because the worms start falling apart if you leave them soaking in the water.

In a bind:

Frozen bloodworms or Frozen brine shrimp cubes

Treats:(never feed more than once a week)

Krill, raw frozen salmon, raw frozen shrimp, live shrimp and live fish (quarantined for at least 30 days before feeding to the Axolotls), Blackworms (as treats for adults)

As is the case with most salamanders, axolotls have no need for vitamin/mineral supplementation, and it would be hard to deliver this to an aquatic animal.

Safe feeder species:

Mollies, Guppies, Platies, Swordtails, Endlers, Cherry Shrimp and Ghost Shrimp.

Feeder fish are intended to be an occasional treat for axolotls and not tank mates. Some of these fish may show signs of aggression in groups and / or have a tough time adjusting to the cool temperatures of an axolotl environment.

All live feeders MUST be quarantined for a minimum of 30 days or bred in house.

Dangerous foods that should never to be fed to axolotls:





Crickets, Mealworms, Superworms and Woodies - anything with an exoskeleton should never be fed to axolotls due to the fact axolotls cannot digest the exoskeletons therefore leading to impaction. It's like feeding them living gravel. Any fish within the families Characidae (tetras) and Loricariidae (plecos) are filled with sharp bones that lotls cannot digest. The scales of Loricariidae fish are also hard to digest. Fish within the family Callichthyidae (armoured catfish) are also covered in hard armoured scales and majority, if not all, have spines that contain toxins and irritants that can do harm to your axolotl/s.

Fish containing thiaminase:

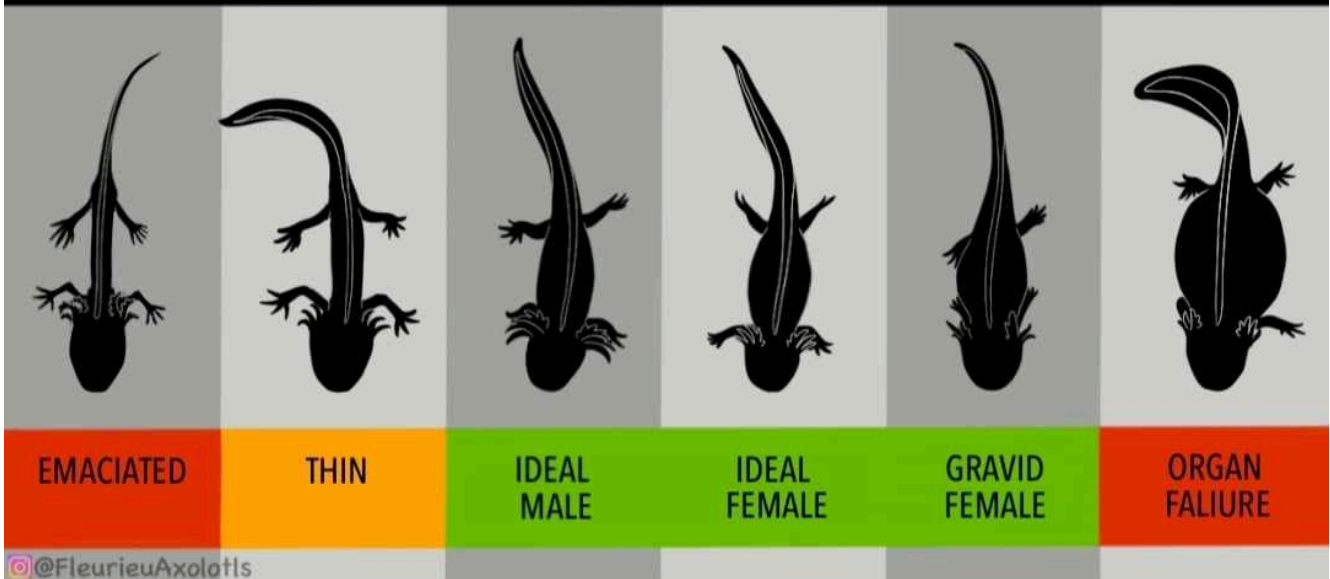
Thiaminase sucks out all vitamin B from your axolotls body regardless if you're feeding other foods, especially if the thiaminase is fed consistently over a period of time as it will become fatal.

Any fish within the family Cyprinidae contain thiaminase, some of these fish are carps (goldfish), minnows, danios, barbs and barbels. Many cyprinidae fish are sold in stores as feeders so it's important to know which fish are the ones to avoid.

Thiaminase doesn't just affect axolotls, but all other amphibians and reptiles as well

<i>Axolotl Food Chart</i>			
			
Hatchling (Less than 3cm)	Baby (3 - 7cm)	Juvenile (7 - 22cm)	Adult (22+ cm)
<ul style="list-style-type: none"> • Baby Brine Shrimp • Microworms • Newly hatched mosquito larvae • Whiteworms 	<ul style="list-style-type: none"> • Adult Brine Shrimp • Mosquito Larvae • Daphnia • Blackworms 	<ul style="list-style-type: none"> • Nightcrawler worms • Blackworms • Hikari massivore delite • Hikari carnivore sinking • Feeder fish • Feeder shrimp 	<ul style="list-style-type: none"> • Nightcrawler worms • Blackworms • Hikari massivore delite • Hikari carnivore sinking • Feeder fish • Feeder shrimp
<p><small>It is highly recommended to individually separate all axolotls to avoid sibling caused injuries, to monitor food intake and to prevent the spread of illness if one falls sick.</small></p> <p><small>For the first 24 - 48 hours after hatching the larvae won't eat as they'll be absorbing the rest of their yolk. The yolk looks like a white line in their abdomen, once this disappears the larvae will need live food available 24/7. You can tell they've eaten when their stomach becomes the same colour as the food.</small></p>	<p><small>At 4 centimeters, all 4 legs should be visible and larger foods can start being given.</small></p> <p><small>You'll want their midsection to be the same width as their heads.</small></p> <p><small>*Live Blackworms will need to be chopped until the lotls are large enough to eat them whole.</small></p>	<p><small>At 7 centimetres you can start introducing them to non-live foods.</small></p> <p><small>They also don't need live food 24/7 so they should be willing to eat any time food is offered as this stage is also known as the hungry stage.</small></p> <p><small>This is also the stage where separation is required as nipping can become a learned habit.</small></p> <p><small>*Nightcrawlers will need to be chopped until the axolotls can eat them whole.</small></p>	<p><small>Once mature, axolotls metabolism drastically slows down.</small></p> <p><small>At 22cm you can further decrease feedings to once a day. Don't be alarmed if your lotl doesn't eat for a few days as they won't eat when they're not hungry. If it has been longer than 10 days since last eating then tub the lotl, check tank parameters and offer one serve of live blackworms in the tub.</small></p>

BODY CONDITION SCORE : AMBYSTOMA MEXICANUM (AXOLOTL)



Axolotl Water and Quality

Tap water is fine for axolotls, provided it is first treated with a water conditioner to remove chlorine and chloramines. Avoid conditioners with aloe or iodine, since those are highly toxic to axolotls.

Seachem Prime is the best one to use for axolotls as it removes both chlorine and chloramine from the water without containing both aloe and iodine.

Ideally, a new aquarium and filter should be allowed to cycle for at least 6-8 weeks prior to the introduction of axolotls, to let the water conditions settle and beneficial bacteria to develop. Be sure to keep an eye on water parameters using the liquid API freshwater test kits sold at aquarium stores. Test strips are inaccurate and a tank must be cycled **PRIOR** to adding axolotls.

Parameters should have a PH between 7-8, Ammonia - 0, Nitrite - 0, Nitrate - Below 40ppm.

Even with healthy axolotls, a good filter and regular water changes should be employed, nonetheless. If you've ever kept aquarium fish, follow a similar routine. The recommendation is weekly 20% water changes, focusing on any waste and debris on the bottom of the tank, combined with spot cleaning throughout the week. A larger water change of 50%-80% may be done once every 4-8 weeks.

DO NOT scrub your tank or decor during your cleaning, as this can harm your beneficial bacteria and cause your nitrogen cycle to crash.

To learn more about tank cycling you can watch a video about it on YouTube, it's critical that you watch and understand the entire video for the health of your axolotls and other aquatic animals you may own.

FRESHWATER MASTER TEST KIT CHEAT SHEET Adapted from Laura Main

PH	High Range PH	Ammonia	Nitrite	Nitrate
UNCYCLED 6.0	CYCLED 7.4	CYCLED 0 ppm	CYCLED 0 ppm	UNCYCLED 0 ppm
Buffer 6.4	CYCLED 7.8	25% Water Change 0.25 ppm	25% Water Change 0.25 ppm	CYCLED 5.0 ppm
CYCLED 6.6	CYCLED 8.0	50% Water Change 0.50 ppm	50% Water Change 0.50 ppm	CYCLED 10 ppm
CYCLED 6.8	25% Water Change 8.2	75% Water Change 1.0 ppm	75% Water Change 1.0 ppm	CYCLED 20 ppm
CYCLED 7.0	50% Water Change 8.4	90% Water Change 2.0 ppm	90% Water Change 2.0 ppm	50% Water Change 40 ppm
CYCLED 7.2	75% Water Change 8.6	100% Water Change 4.0 ppm	100% Water Change 5.0 ppm	75% Water Change 80 ppm
CYCLED 7.6		100% Water Change 8.0 ppm		100% Water Change 100 ppm

More about cycling - <https://www.jubjubtheaxolotl.com/general-5>

Axolotl Handling and Temperament

Axolotls are delicate and soft-bodied amphibians with permeable skin. Axolotls should not be handled unless absolutely necessary (they are tricky to catch in a net). If you use a net to move an axolotl, avoid nets with mesh that would let an axolotl's fingers get damaged. Use a soft, very fine mesh net.

A popular question is 'can you hold your axolotl?'. They are aquatic animals, so holding them out of the water is not good, unless it is to switch tanks. Touching them too much can harm their slime coat and make them vulnerable to bacteria and fungus.

Young axolotls tend to nip at or bite off the legs and gills of their tankmates, so youngsters should only be kept together if fed well daily and given plenty of space.

Axolotl first Aid

I like to have on hand:

Decaf black tea bags
Pure Red Rooibos tea
Indian almond leaf (IAL)
Epsom salt
Shoebox sized Tupperware container for tubbing

At least one of these on hand ↓:

Methylene blue
Tri sulfa
Furan-2
Tetracycline
Blue Planet Fluke and Tapeworm Tablets

This doesn't include meds to remove anchor worms due to current medications not being axolotl safe. Anchor worms will need to be removed by an exotic animal vet who does work with axolotls.

***How to use the fluke and tapeworm medication* ↓**

Week 1:

Put the axolotl in a tub of cool dechlorinated water, depending on how much water u use for the tub depends on how much medication. Do 100% dechlorinated daily water changes and add the crushed meds each water change.

Week 2:

Keep the axolotl tubbed with 100% daily dechlorinated water changes but don't use any medications this week.

Week 3:

Do the same as week 1 to make sure any worm/parasite eggs are killed.

Unfortunately treating parasites in axolotls is very hard. A vet is needed to find out which parasite it is and then can give the correct axolotl safe medication for treatment

Most meds available to the public aren't safe for axolotls.

Start with tea baths. It'll help until you can get to a vet.

Tea Baths:

To do tea baths, brew the decaf black / Rooibos tea in water and let cool. Use spring or dechlorinated water and do this 3 times a day for about 15-25 minutes at a time, the tannins of black tea is very similar like how you would do it with IAL, this should clear up the fungus and soothe the skin if there is any irritation. Do tea baths BEFORE trying other methods.

Methylene Blue Baths:

Baths once a day in a separate tub for 30 mins for 4 days in a row, if it's still there take 2 break days.

Get a cotton bud, dip it in the methylene blue, and then try to gently dab it onto wherever the fungus is while the axolotl is in the water. They get mildly irritated by it but nothing too extreme. Try to make sure the entire ball of fungus is dyed blue, and by that point the water should be blue enough that you don't need to add any more of it.

You don't want the water to be too blue, just tinted. Then leave it for 30 mins before returning the axolotl to clean dechlorinated water.

Every time you do this, the fungus would get looser and looser from their frill, and eventually either fall off or just disappear off of them on their break day. It usually takes about 4 days for the fungus to come off.

If left in methylene blue of strong amounts it will stain the skin of your lotl.

Methylene blue is an incredibly strong dye so caution is to be taken to ensure it doesn't end up everywhere, stains can remain on human skin for several days. This is important to know if you're renting or have an important thing to get to such as a job interview.

Salt Baths:

Not to be done for lotls as salt burns their skin. It is incredibly painful for them and their skin is very sensitive. This also goes for scaleless fish species as well.

Axolotl Tubbing - A Brief Guide

When should an axolotl be tubbed?;

There are many situations where tubbing an axolotl is needed. Some of the most common examples are if the tank is not yet finished cycling, if the tanks cycle has crashed, if illness arises and if the axolotl has gotten an injury. You should always tub an axolotl before thinking about putting an axolotl in the fridge. Fridging an axolotl is only used as a last resort in a life or death situation.

Supplies for tubbing:

- Two or more plastic rectangular tubs with covers. This tub should be large enough for your axolotl, I recommend basing it off of your axolotl's length (tail tip to nose). Try to get at least 1x length in one direction and 2x length in the other so that I can see if they need changing at a glance, but any BPA-free food safe container will work.
- Small desk / clip on fan
- Seachem prime water conditioner
- Aquarium thermometer

Instructions on tubbing:

- Fill your tubs with clean water that is temperature matched to your axolotl's current environment.
- Change your axolotl into a tub with clean dechlorinated at least once every 24 hours.
- Remove any waste (poop + old uneaten food) throughout the day everyday.
- Always make sure your water is dechlorinated before moving your axolotl. Seachem prime is the best water conditioner for axolotls as it lacks iodine and aloe (both are toxic to axolotls)
- Cooling: have a small fan on a low setting, blowing cool air onto the surface of the water of the tubbed axolotl if they're kept in warm / hot room temperatures. I personally use a fly screen for a lid so that cool air can get in but the axolotl can't accidentally jump out of the tub.

Tubbing notes:

- The water level in your tub should always completely cover the axolotl.
- A lid / cover is necessary when tubbing as axolotls can launch themselves out of the water when they 'spaz out'.
- Clean the tubs with warm water before refilling them, don't use soap as any residue will critically harm the axolotl.
- Don't seal the tub with a lid that doesn't have air holes. You want lots of oxygen to be available and sealing the tub will make keeping the water cool next to impossible hence why I recommend a fly screen lid / cover.
- Limit light that will come onto the tub, I like to keep tubbed lotls in the darkest place in the room with a lid on the tub, being in a dark, quite, cool room reduces stress on the axolotl.
- Remember to keep the Axolotls water clean
- When tubbing your axolotl, remember to keep an eye on your tank's water parameters as without an ammonia source the cycle will crash if no source is available longer than 3 days.